

Surface Water Sampling:

EPA conducted surface water sampling on April 6, 2019, at ten sample locations. The surface water samples were collected along Buffalo Bayou and the San Jacinto River and will be analyzed for per- and polyfluoroalkyl substances (PFAS), volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), chemical oxygen demand (COD), and oil & grease. The results from the sampling event were compared to the Texas Commission on Environmental Quality (TCEQ) Surface Water Quality Standards (WQS), or to TCEQ Texas Risk Reduction Program surface water protective concentration levels (PCLs), if a WQS was not available for a chemical. On March 21, 2019, the surface water sample collected at the confluence of Tucker Bayou and Buffalo Bayou (BB-02) exceeded the PCL for oil and grease, and the WQS for naphthalene, benzene and total xylenes. On March 25, 2019, the surface water sample collected on Buffalo Bayou at the Battleship Texas (BB-05) exceeded the PCL for oil and grease. On March 30, 2019, the surface water sample collected at confluence of Tucker Bayou and Buffalo Bayou (BB-02) exceeded the WQS for 1,2,4-trichlorobenzene. On April 2, 2019, the surface water sample collected on Buffalo Bayou at the Battleship Texas (BB-05) exceeded the WQS for 2-methylnaphthalene and phenanthrene. On April 3, 2019, the surface water sample collected at confluence of Tucker Bayou and Buffalo Bayou (BB-02) exceeded the WQS for benzo(b)fluoranthene. No other exceedances have been observed.

EPA found that concentrations for PFAS were the highest at the confluence of Tucker Bayou and Buffalo Bayou, which is closest to where PFAS from firefighting foam entered the water. EPA's analysis of the preliminary data show that concentrations in the surface water are trending downward over time and distance downstream from the confluence. EPA tested for 24 types of PFAS including perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) using ASTM Method D7979. Preliminary background data from upstream of the spill also showed PFAS. These concentrations are unrelated to the ITC incident, and are only slightly lower than current downstream concentrations of PFAS in surface water. For example, background concentrations for PFOA ranged from 11.2 to 12.7 ng/L and for PFOS ranged from 164 to 192 ng/L.